



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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September 28, 1999

TO: File

THRU: Daron Haddock, Permit Supervisor *DH*

FROM: Sharon Falvey, Senior Reclamation Specialist/Hydrologist *SKE*

RE: NOV-99-26-2-1 Submittal, Lodestar Energy, Inc., Horizon Mine, ACT/007/020-AM99E, Folder #2, Carbon County, Utah

## SYNOPSIS:

This submittal was provided to fulfill the abatement associated with NOV-99-26-2-1. The violation was terminated based upon receipt of the information on June 18, 1999. The information was re-submitted on September 3, 1999 in response to the August, 1999 technical analysis. Information included in the submitted tables was compared to lab sheets, submitted previously. The NOV remedial action required precedes the analysis in *italic* and is followed by the review.

## ANALYSES:

*1) Submit a mine sequence underground map that clearly shows:*

- a) Water monitoring point locations for the 2nd and 3rd quarters 1998.*
- b) Other sources of mine water; roof, floor, fissures and sumps.*
- c) Other mine water monitoring points, such as the wet test sampling in support of UPDES application for mine water discharge.*

Appendix 7-2, Attachment A, Plate A. was provided meet the requirements of NOV-99-26-2-1 item #1. Plate A shows sampling points (BBM) monitored 12-18-97, and (BBM) monitored 4-11-98. Sampling point (HM) 4-11-98, and the minewater UPDES discharge outfall point 002 are also shown. The map includes sumps, pipeline and mineworkings information.

The source and extent of minewater were not clearly presented. A table describing the location and collection information is provided in the plan but, the water source needs to be more specific and descriptive. The water sources are stated to be "unknown" except for location BBM, sampled on April 11, 1998, which was identified as discharging to the mine through a roof bolt hole. In previous discussions with mine representatives it was suggested the majority of water issues from the old workings. Sample BBM, collected on April 19, 1998, is identified to be from the floor sump and was analyzed in accordance with requirements for the UPDES Toxicity

Report. The source and extent of the mine-water continues to be an issue and will require additional information to be adequately described.

A laboratory sheet labeled "Jewkes Creek Waste Water" does not match a water monitoring point label on the map. Vicky Miller, EarthFax Engineering, Inc. indicated that since this site was believed to be temporary, the monitoring point was not labeled. The lab sheets do not match the labeled sampling points. All lab sheets need to provide an identification which matches the mapped identification label.

Two samples (SS-3 collected on 12/31/98 and Pond 001 collected on 4/30/1999) were submitted to the laboratory more than 2 days after collection. The resulting data analysis exceeded holding times for some parameters and exceed acceptable limits for retaining samples to be analyzed for metals without filtering.

A data set, provided prior to this submittal, included field parameter but lacked laboratory information for the pond 001 discharge during the months November and December 1998, and January and February 1999. After questioning the mine consultant Vicky Miller, EarthFax Engineering Inc., on September 27, 1999, she indicated there was no discharge for these periods and that the previous information submitted included field data obtained from the pond not the outlet; however, a mine inspection report indicates that the pond was discharging on 2/9/99. In addition the mine discharge log indicates the pond did discharge during these months. Inspection reports over this period also indicate the mine's UPDES permit had expired during this period.

The "In-Mine Water Log" presented in Attachment A does not provide the Division with the raw data to verify the calculations and quantity presented in the Log. The actual field measurements should be made available to the Division. Based on the approved plan the applicant was required to record the period of pumping and the daily flow rate until a continuous flow meter was installed. Tables are provided, in Appendix 7-2.

The data resulting from the W.E.T. test sample obtained on 4/19/98 showed no significant effect on growth or survival for the Flathead Minnow but, showed a significant effect on reproduction and survival of Ceriodaphnia. This result may require additional attention in the PHC and fish and wildlife sections in the plan when updated.

*2) Provide a surface hydrology map showing location of surface mine water monitoring locations.*

The surface map submitted to provided in the amendment to meet the requirements of NOV-99-26-2-1. #2 is shown on Plate 7-1. **Plate 7-1 shows a permit area that is not presently approved by the Division. However, the legend does not provide a description for the line therefore, the identified boundary is considered invalid.**

**Findings:**

This application does not meet all regulatory requirements. However, information was reported with an intent to meet requirements related to a NOV. Therefore, the information should be incorporated.

**RECOMMENDATION:**

This submittal was obtained after permit transfer therefore, the information should be incorporated even with the acknowledged discrepancies; however, it is recommended these issues be incorporated into the cover letter. The following could result from continued mine data and submittal discrepancies:

- The water sources and extent of intercepted mine-water needs to be specific and descriptive. This issue remains outstanding until it is resolved. Failure to resolve this issue will slow the application processing for the new lease area.
- The Permittee's failure to meet holding times should result in issuing hindrance violations for all future occurrences.
- Failure identify a water monitoring point label on the laboratory samples and analyses sheet should result in a hindrance violation.
- The "In-Mine Water Log", presented in Attachment A, does not provide the Division with the raw data to verify the calculations and quantity presented in the Log. Copies from the actual field data sheets should be made available to the Division. Failure to produce these logs could become an issue if public concerns arise that require the applicant to demonstrate all regulatory requirements are met.

Information submitted should be incorporated into the permit. Management should determine whether additional Hindrance Enforcement action should be taken to address those issues where failure to collect adequate data was not specific to the original violation.

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cc: Steve McNeal, Division of Water Quality.  
Bill Malencik, Division of Oil, Gas and Mining, PFO.  
Dave Darby, Division of Oil, Gas and Mining.  
Ken Wyatt, Division of Oil, Gas and Mining.

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